## Remarks

A. Basis for amendments to the claims

Claim 1 has been amended to include the following limitation:

- wherein curing of the vinylidene fluoride/ hexafluoropropylene/ tetrafluoroethylene elastic copolymer is performed by irradiation with ionizing radiation.

This limitation is from dependent claim 2, which has been canceled. Further basis for this limitation is found in paragraph [0032] of the published specification.

Claim 1 has further been amended to include the following limitation:

- wherein the sealing material does not include an unsaturated polyfunctional compound.

Basis for this limitation is found in paragraphs [0029] and [0032] of the published specification.

First, please find being reproduced for the convenience of the reader paragraph [0029] of the published specification where applicant provides that curing with an organic peroxide is preferably conducted where an unsaturated polyfunctional compound is used as a curing co-agent:

> [0029] The curing with a organic peroxide is preferably conducted in a curing system in which an organic peroxide is used as a curing agent and an unsaturated polyfunctional compound is used as a curing co-agent. Examples of the organic peroxides include: benzoyl peroxide, dichlorobenzoyl peroxide, dicumyl peroxide, 2,5-dimethyl-2,5-di(peroxybenzoate)hexine-3,1,4-bis(tert-butylperoxyisopropyl)benzene, lauroyl peroxide, tert-butyl peracetate, 2,5-dimethyl-2,5-di(tert-butylperoxy)hexine-3,2,5-dimethyl-2,5-di(tert-butylperoxy)hexane, tert-butyl perbenzoate, tert-butylperphenyl acetate, and others. Examples of the unsaturated polyfunctional compounds to be used include: trially isocyanurate, trially cyanurate, trimethylolpropane trimethacrylate, polybutadiene and others. A use amount of an organic peroxide is preferably in the range of from 0.1 to 3 parts by mass relative to 100 parts by mass of a

> vinylidene fluoride/hexafluoropropylene/tetrafluoroethylene elastic copolymer, and a use amount of an unsaturated polyfunctional compound is preferably in the range of from 0.5 to 10 parts by mass relative to 100 parts by mass of a vinylidene fluoride/ hexafluoropropylene/tetrafluoroethylene elastic copolymer [emphasis added].

Second, paragraph [0032] is reproduced below and the reader will note that applicant states that no necessity arises for mixing a curing co-agent in the case of curing by irradiation with ionizing radiation.

> [0032] While curing of the vinylidene fluoride/hexafluoropropylene/tetrafluoroethylene elastic copolymer can also be conducted by methods of curing with the organic peroxide, curing with the polyol and curing with the polyamine, it is especially preferable, in the invention, to conduct curing of the elastic copolymer by irradiation with ionizing radiation. In a case of curing by irradiation with ionizing radiation, since no necessity arises for mixing a curing agent, a curing co-agent, an acid receiving agent and others thereinto, a sealing material less in quantity of a released gas is obtained to thereby make a speed faster at which a system of an semiconductor manufacturing device reaches a target vacuum state, which leads to an advantage that a throughput can be improved. Curing by irradiation with ionizing radiation requires molding prior to the irradiation, wherein though a problem is worried that a molded intermediate is generally deformed with ease and poor in shape retaining property, the molded intermediate of the invention has a fluorine content in a specific range, and therefore, is excellent in shape retaining property and hard to be deformed, thereby enabling a product less in dimensional error to obtained [emphasis added].

Basis for new dependent claim 12 includes Example 1-1, Example 1-2, original claim 1, and paragraphs [0021] and [0022] of the published specification.

B. The Office Action

On pages 2-4 of the Office Action, restriction was required. Applicant hereby affirms the election with traverse to prosecute the invention of Group I, claims 1-4. It is respectfully submitted that the claims as amended, as well as the new claims, read upon the elected invention.

On page 4 of the Office Action, a substitute specification was required, and a substitute specification

(a marked up copy and a clean copy) is being filed with this Amendment and Remarks. This substitute specification includes no new matter.

On pages 4-6 of the Office Action, claims 1 and 3 were provisionally rejected on the ground of nonstatutory obviousness-type double patenting. It was indicated that a timely filed terminal disclaimer may overcome this rejection. However, it should be noted that dependent claim 2 has been wholly incorporated into independent claim 1. Thus, it is respectfully submitted that no terminal disclaimer is presently required.

On pages 6-10 of the Office Action, the claims were rejected over the following references: Albano et al., Legare et al., Kometani et al., Hintzer et al., Tatemoto et al., and Minamino et al. These rejections are respectfully traversed on the basis of applicant's discussion in section C. of this paper found immediately below.

C. Applicant's discussion

C.1. As against the rejection of claims 1 and 3 under 35 U.S.C. § 102 over each of Albano et al., Legane et al., Kometani et al. and Hintzer et al.

The sealing material of claim 1 as amended above is a product cured (crosslinked) by irradiation with ionizing radiation (which was the subject matter of claim 2 but has now been introduced into claim 1 above).

On the other hand, none of Albano et al., Legane et al., Kometani et al. and Hintzer et al. discloses using irradiation to cure the resin.

Accordingly, neither claim 1 as amended above nor claim 3 dependent thereon is anticipated by any of such references.

It should also be noted that the Patent Office has not

applied such references against canceled claim 2, the subject matter of which is directed at ionizing radiation and has been incorporated into claim 1.

C.2. As against the rejection of claim 1-4 under 35 U.S.C. § 102 or § 103 over Tatemoto et al. or Minamino et al.

C.2.a. Tatemoto et al.

Tatemoto et al. makes the following disclosures:

Column 3, lines 61-63

> Ionizing radiation may be also utilizable, but it produces radical indiscriminately in essence and is thus undesirable [emphasis added].

Column 4, lines 50-56

> As the cross linking source, high energy electromagnetic waves such as radioactive rays (e.g. γ-rays, electron rays, α-rays, β-rays, X-rays) and ultraviolet rays may be employed, but the use of a cross linking agent such as organic peroxides, polyamines, polyhydroxy compounds and polythiol compounds is more favorable [emphasis added].

While Tatemoto et al. teaches that ionizing radiation may be utilizable, the Tatemoto et al. reference does not teach HOW ionizing radiation may be used. For example, Tatemoto et al. may have produced radicals indiscriminately by employing polyfunctional unsaturated compounds, exactly that which is excluded from claim 1. Thus, Tatemoto et al. is a nonenabling reference as to ionizing radiation.

C.2.b. Minamino et al.

The composition of Minamino et al. is an ultraviolet-crosslinkable fluorine-containing polymer composition comprising an ultraviolet-crosslinkable fluorine-containing polymer, a photoinitiator as a crosslinking agent and a polyfunctional unsaturated compound as a crosslinking aid.

That is to say, the composition of Minamino et al. contains a photoinitiator as a crosslinking agent and a polyfunctional unsaturated compound as a crosslinking aid.

On the other hand, the sealing material of claim 1 as amended above is a product cured (crosslinked) by irradiation with ionizing radiation. Therefore, there are the advantages as described in paragraph [0032] of the published specification. That is to say, when this sealing material is produced, no necessity arises for mixing a curing agent, a curing co-agent (particularly, an unsaturated polyfunctional compound as disclosed in paragraph [0029] of the published specification and as now recited in claim 1 as amended above), an acid receiving agent and others thereinto. As a result, a sealing material less in quantity of a released gas is obtained to thereby make a speed faster at which a system of an semiconductor manufacturing device reaches a target vacuum state, which leads to an advantage that a throughput can be improved.

Moreover, claim 1 now specifically and positively recites that the sealing material does not include an unsaturated polyfunctional compound.

Therefore, the present amended invention is not anticipated by or obvious over Minamino et al.

D. Housekeeping matters

D.1. Period For Reply

A shortened statutory period for reply was set to expire three months from the mailing date of the Office Action of July 25, 2007. July 25, 2007 plus three months is October 25, 2007. This paper is being filed on or before Thursday, October 25, 2007.

D.2. Status

The Office Action of July 25, 2007 was nonfinal.

D.3. Disposition Of Claims

Claims 1, 3-4 and 12 are pending. Claims 5-11 are presently withdrawn.

D.4. Application Papers

This case includes no drawings.

D.5. Priority under 35 U.S.C. §§ 119 and 120

Acknowledgement of the claim for foreign priority was made in the Office Action dated July 25, 2007. This is appreciated.

Receipt of the certified copies of the priority documents was acknowledged in the Office Action dated July 25, 2007. This is appreciated.

D.6. Attachments

Applicant has filed two PTO-1449 forms in this case (both on March 19, 2005). These two forms have been initialed, signed and returned. This is appreciated.

E. Summary

Applicant respectfully submits that the present application is now in condition for allowance. The Examiner is respectfully invited to make contact with the undersigned by telephone if such would advance prosecution of this case.

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